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ABSTRACT

These three papers were presented at a symposium on evaluation issues on human resource development (HRD) moderated by Hallie Preskill at the 1996 conference of the Academy of Human Resource Development. "Designing an Effective 360-Degree Appraisal Feedback Process" (David Antonioni) presents a conceptual model for a 360-degree appraisal feedback process as a guide to help HRD practitioners attain desired outcomes for 360-degree appraisals. "A Survey about Training Evaluation Practices in Selected Organizations" (William J. Rothwell) summarizes the results of a 1995 survey of American Society for Training and Development members that showed that most training evaluation is conducted by HRD professionals and that course evaluations remained the most frequently used method. "Comparing the Predicted and Actual Benefits of HRD Programs" (Ronald L. Jacobs, Maria T. Hruby) reports on a study of forecasted versus actual benefits of HRD interventions. The study first forecasted the expected benefits of a structured versus an unstructured on-the-job training program for two tasks, then evaluated actual benefits versus the predicted benefits, with the resulting implications then discussed. Papers contain references. (KC)

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SYMPOSIUM
[3] EVALUATION ISSUES IN HRD

Chair: Hallie Preskill, University of New Mexico

Designing an Effective 360-Degree Appraisal Feedback Process
David Antonioni, University of Wisconsin-Madison

A Survey about Training Evaluation Practices in Selected Organizations: Summary of Results
William J. Rothwell, Pennsylvania State University

Comparing the Predicted and Actual Benefits of HRD Programs
Ronald L. Jacobs, Ohio State University
Maria T. Hruby, Ohio State University

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Designing an Effective 360-Degree Appraisal Feedback Process

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Human resource development (HRD) can play a major role in designing an effective 360-degree appraisal process, in addition to training 360-degree appraisers, appraisees, coaches, and administrating the overall appraisal process. A conceptual model for a 360-degree appraisal feedback process is presented in this paper. The inputs, throughputs and outputs of the 360-degree process are discussed based on the author's experience and research. The model is presented as a guide to help HRD practitioners attain desired outcomes for 360-degree appraisals.

Organizations are beginning to use a 360-degree feedback process. In this process individuals appraise themselves and also receive appraisal feedback from their appraisers; immediate supervisor, peers, and from direct contributors if they are managers. A recent survey by the author of 280 Midwest companies indicates that 25% use annual upward appraisals, 18% are using peer appraisals and about 12% are using full 360-degree appraisals.

Human resource development (HRD) can play an important role in helping organizations attain desired outcomes of the 360-degree appraisal process. Short-term outcomes include an increase in individuals' awareness of their strengths and weaknesses as well as an increase in positive changes in individual work behaviors. However, there are additional outcomes such as the improvement of open and candid communication between individuals and their appraisers. Long-term outcomes should also be considered, such as an increase in the amount of informal feedback that individuals seek from their appraisers, improvement in decisions about promotion, and enhancement of organizational learning. These outcomes will be discussed in more detail later in this article.

The purpose of this article is to share a 360-degree appraisal process model with HRD professionals. The model is based on the author's experience in consulting and implementing 360-degree appraisals with four organizations (manufacturing, service, and public not for profit). Within these organizations the author used 360-degree project teams to help in the design, implementation, and evaluation of the 360-degree process. Results of studies testing different components of the model will be discussed along with the results of surveys assessing the perceptions of the 360-degree process.

A Model for an Effective 360-Degree Appraisal Process

In designing a model for a 360-degree appraisal process, a systems view was used to describe the big picture and the specific components of the process. There are three major components of a system: input, throughput or process, and output. Figure 1 shows the overall model and the specific 360-degree appraisal factors to consider under each of the system's components.

The Inputs Input includes factors or activities that should take place before appraisers complete 360-degree appraisal surveys and before individuals receive 360-degree appraisal feedback. Eight major input factors are included in the 360-degree appraisal model. These factors include (1) the objective of the 360-degree appraisal, (2) the format of 360-degree appraisal instruments, (3) the importance of anonymity for appraisers, (4) selection of peer appraisers, (5) training for appraisers, (6) training individuals (appraisees) how to get the most out the summary results of their 360-degree appraisals, (7) training coaches how to coach others using the 360-degree appraisal feedback, and (8) the design of the report summarizing the 360-degree appraisal data.

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Figure 1
A 360-Degree Appraisal Process: A Model

Inputs →	Process →	Outputs
1. The purpose . . . developmental vs. evaluative 2. The appraisal form - Written feedback 3. Appraiser anonymity 4. Appraiser selection - Peers 5. Training appraisers 6. Training appraisees 7. Training for coaches 8. Feedback report	1. Self-appraisal 2. Types of feedback 3. Bench-mark data 4. Coaching steps 5. Targeting improvement 6. Action plans 7. Reporting results back to appraisers 8. Specific goals/action 9. Just-in-time training 10. Mini assessments/follow-up 11. Recognition for improvement 12. Accountability	1. Increase awareness of other's expectations 2. Improvements in individual work behaviors/performance 3. Reduction of undiscussables 4. Increase in periodic informal 360-degree performance reviews 5. Organizational learning

The Purpose of 360-Degree Appraisals. One objective of 360-degree appraisals is to help individuals develop by giving them feedback. Another objective is to use the appraisals to evaluate individuals and make personnel decisions. A developmental objective should be used for the first three years before using the appraisals to make personnel decisions like compensation, promotion, or demotion. Research suggests that peers do not want appraisals to be used for evaluation (McEvoy & Buller, 1987). Direct contributors may inflate upward ratings if the ratings are used to determine their manager's merit raises. People need time to build trust in the 360-degree process before 360-degree appraisals are used for evaluation. In addition, the first three years of a 360-degree process should be reserved to build an organization's learning curve in using 360-degree appraisals.

The 360-Degree Appraisal Instrument. It is important that 360-degree appraisal feedback is relevant and specific. Therefore, organizations should develop their own 360-degree appraisal instrument or survey or require that pre-developed commercial 360-degree appraisal surveys are customized to fit the organization. In addition, companies that design their own surveys may achieve greater employee acceptance and commitment to the 360-degree feedback process if employees' input is included in the design of the survey. Initial time and cost factors are high when companies develop their own surveys; however, it may be cost effective if a company has more than 100 employees. If an organization wants to start with surveys developed by management consultants, the Center for Creative Leadership has a current list of the most reliable surveys and their costs (Van Velsor & Leslie, 1991).

Written Feedback is Invaluable. Focus groups conducted by the author within the four organizations revealed that appraisees desire written feedback because it would help them target individual work behaviors that needed improvement. Most appraisers also indicated they wanted an opportunity to provide written comments on the 360-degree appraisal survey. The specific rating scaled items serves as a frame of reference regarding work behaviors and performance and the written section provides additional feedback to support the ratings.

Follow-up survey studies by the author indicate that individuals find written feedback more helpful than rating scales in explaining how they are perceived by their staff. In addition, appraisers indicated that most of them were not fearful of providing written comments. However, some appraisers were concerned that individuals might be able to recognize who made specific comments if only a few appraisers completed the 360-degree appraisals. Individuals need to make sure they respect their appraisers' need for anonymity or they will risk losing valuable feedback in future 360-degree appraisals.

Requiring Appraiser Anonymity or Accountability. Research indicates that managers prefer that their direct contributors (appraisers) be held accountable for upward appraisal rating responses (Antonioni, 1994). That is, they want their direct contributors to sign their names on the upward appraisal surveys. Scholars on upward appraisals, however, strongly suggest that staff's responses remain anonymous (Bernardin, 1986).

A study on upward appraisals investigated whether there were empirical differences between appraisals which asked appraisers to be accountable and those which insured appraisers' anonymity. The results of the study show that while managers wanted their direct contributors to be accountable for their

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ratings, direct contributors wanted their ratings to remain anonymous. In addition, direct contributors who had to sign their names to the upward appraisal surveys gave their managers higher ratings than those who used an anonymous procedure. Follow-up interviews indicated that direct contributors rated their managers higher due to concerns over their managers' reactions to the evaluations (Antonioni, 1994).

Selecting Appraisers. There is the possibility that some appraisees may select peers who they feel will give them favorable appraisal ratings and comments. Selecting peer appraisers can become an issue unless peers are selected using an objective criteria such as the extent of interdependency and an opportunity to observe of peer work behaviors. For example, peers who are internal customers of the appraisee should be selected. In addition, the appraisee and his or her supervisor should jointly select peer appraisers.

Training Appraisers. HRD should provide training to all 360-degree appraisers. Appraisers need training on how to spot and avoid making rating errors such as halo effect, central tendency, range estriction, leniency, and harshness. Halo effect for example, occurs when a appraiser fails to differentiate between performance dimensions and generalizes from one dimension to all other dimensions. Halo effect is common in upward appraisals (London, M., & Wohlers, A. J. (1991).). For example, a manager maybe rated as average on all areas of supervisory behaviors because the appraiser believes she or he is average in one dimension (such as coaching). Appraisers can benefit from training that provide them a common frame of reference for using the response categories to evaluate different supervisory behaviors (Bernardin & Beatty, 1984). Whatever response scale is used, appraisers should become familiar with it prior to the appraisal.

Summary Reports of 360-Degree Appraisal Results. The way that the results of the 360-degree appraisal are presented to individuals may affect the outcomes. The data needs to be presented in a manner the individual can easily understand. Individuals must be able to quickly identify their strengths and areas that need improvement. Summary feedback forms should use a visual bar chart comparing self-ratings to appraisers' ratings for each question. Merely presenting numbers and expecting individuals to compute the differences is not as effective as the pre-computed visual bar chart. Written comments are valuable, especially when the comments reference survey items and provide examples or make the appraiser's expectations more explicit.

Training for Appraisees. HRD should provide all individuals who are appraised by others with training in four areas: analyzing the data and selecting improvement targets, processing feelings associated with receiving unexpected negative feedback, discussing the summary results with their appraisers, and setting specific goals and action plans. Usually 360-degree appraisal summary reports contain a lot of data. Individuals may need help making sense out of the data. If the 360-degree appraisal data suggests a need for improvement in a number of areas then individuals need to prioritize improvement targets. Individuals should also have training to prepare them for receiving unexpected negative 360-degree appraisal feedback. The training should also demonstrate ways to discuss the results of the 360-degree appraisals with appraisers and point out the benefits of doing so. Finally, individuals need training on setting specific goals and action plans for goal attainment..

Training for Coaches. Most individuals need someone with whom they can openly discuss their 360-degree appraisal results. Coaching is important in helping individuals interpret the 360-degree appraisal results, mutually setting improvement goals with individuals, and following up on action plans. Coaches play an important role in helping individuals shape new individual behaviors. It is common for immediate supervisors of appraisees to be the coach. These supervisors need specific training on how to conduct coach using 360-degree appraisal results.

The author's survey results however, indicate that appraisees are not satisfied with the 360-degree coaching they received from their immediate supervisors. Supervisors tended to be poor listeners and talk too much in the coaching sessions. Training for coaches should include active-listening, focused interviewing, selecting targeted improvement areas, dealing with feelings and reactions to unexpected negative 360-degree appraisal feedback, setting specific goals and action plans, follow-up, and shaping the development of new behavioral "habits."

Throughput or Process Individuals need an effective process to turn their 360-degree appraisals results (input) into desired outcomes. The process should insure an increase in individuals' awareness of how others see them and how to take ownership for improving targeted areas. The process should also teach individuals how to share and discuss their 360-degree appraisal results with their appraisers. To make sure the process is fully effective organizations should provide just-in-time training, conduct mini-360-degree appraisal assessments, recognize improvements in desired work behaviors, and insure that individuals are accountable for making needed improvements.

Using Self-Appraisal. Self-assessment, especially when done for developmental reasons, tends to set the stage for receiving constructive feedback. Individuals who do a self-assessment can highlight the discrepancies between how they see themselves and how others sees them. This usually creates a constructive tension and motivates individuals to examine the areas that appraisers indicated needed improvement. Some individuals are surprised by ratings from appraisers that are lower than their self-ratings. These individuals tend to have overrated themselves. The unexpected low ratings let them know that they need to improve specific areas or at least discuss the discrepancy between their ratings and their appraisers'.

Self-Perception Accuracy and Reactions. The extent to which individuals see themselves as appraisers see them is an important component of processing the 360-degree appraisal feedback. When individuals compare appraisers' ratings to their self-ratings, two dimensions can be used to describe individuals' reactions to their analysis of the 360-degree appraisal feedback. One dimension relates the appraisers' desire for changes in work behaviors or performance. The other dimension focuses on the extent to which 360-degree appraisal feedback came as a surprise to appraisees. Based on these two dimensions four types of feedback are possible. Type 1 reactions are positive because the self-appraisal is in agreement appraisers. The reactions are positive because individuals receive expected positive feedback from appraisers. This can be labeled as an individual's strength. Type 2 reaction is also positive because the individual is not expecting positive 360-degree appraisal feedback. Individuals with this reaction rated themselves lower than appraisers did. Therefore this type of feedback indicates the individual's hidden strengths. Type 3 reaction is usually neutral because the individual expected and agreed with the low 360-degree appraisal ratings and therefore is labeled has a definite area for improvement. Type 4 reactions can vary from confused to defensive because the individual received unexpected low 360-degree appraisal ratings, which usually means that the individual gave himself or herself higher ratings than appraisers did. Type 4 feedback is the most difficult feedback for individuals to process because of the discrepancy between appraisals of self and others. In some case's individuals accept this feedback after they have had time to process it. A good coaching session can help some individuals effectively process this feedback. In some case's individuals need to get more information from their appraisers before they can accept that a change in their behavior is needed.

The author's survey results regarding the percentage of the four types of feedback manages received indicate the following. Regardless, of appraiser source, managers reported that about 25% of the feedback they received was expected positive feedback, 30% unexpected positive feedback, 20-30% expected negative feedback, and 15-20% unexpected negative feedback. The percentage of unexpected negative feedback is supported by follow-up survey results from appraisers. Appraisers indicated that 19% of the managers would be surprised by low ratings on the 360-degree appraisals and that 15% of the managers definitely needed to improve their supervisory behaviors. Moreover, follow-up results from the managers indicate 20% of them did not know what their weakest supervisory behaviors were before they received their 360-degree appraisal results.

Providing Benchmark Data. One way to create motivation for improvement is to provide individuals with norms so that they can compare how they are doing in relation to other individuals. Individuals who received low ratings may be more motivated (internal tension) to improve if they can compare their ratings to aggregate ratings from other individuals within the organization. Follow-up survey results with individuals indicate that most individuals want 360-degree appraisal benchmark information. Unfortunately, when organizations designed their own 360-degree appraisal surveys they did not have normative data available until after the first year. It is important for each organization to assess how important benchmark data is to individuals.

Coaching for Improvement. Reviewing 360-degree appraisal results is important for two reasons; it gives individuals an opportunity to share their feelings about the results and to discuss their plans for improvement. Usually there is too much 360-degree appraisal data to interpret. Research studies suggest that individuals who have review sessions with human resource development trainers understand the data more easily and focus on the areas that need improvement (Nemeroff & Cosentino, 1979).

The author's survey results indicate that only about 50% of the individuals discussed the 360-degree

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appraisal results with their immediate supervisors. Organizations need to pay close attention to the coaching process for a number of reasons. Individuals who need to make significant improvements may choose not to meet with their supervisors. In some cases individuals are concerned about sharing their poor 360-degree appraisal results with their supervisors because they are not sure how the results will be used. This is especially the case with upper middle individuals and senior individuals. Some executives have indicated that they feel they have too much to lose by openly discussing their low-rated individual work behaviors with their bosses. They would rather discuss their 360-degree appraisal results with a neutral party such a human resource development specialist or a management consultant. HRD specialists were effective in using upward feedback to help managers improve their performance appraisal interviews (Nemeroff & Cosentino, 1979), and a consultant was effective in helping managers improve their supervisory behaviors based on upward appraisals. (Hegarty, 1974).

Targeting Tentative Improvement Areas. Without a formal review and goal-setting process, individuals who receive 360-degree appraisal feedback without appropriate coaching may have a difficult time deciding which behaviors are in most need of improvement. For best results individuals should target two or three low-rated behaviors and set tentative improvement goals. Then individuals should meet with their appraisers and share the areas they have targeted for improvement. The purpose of meeting with appraisers is to seek additional information which should help individuals set specific rather than general improvement goals.

Developing Action Plans. Developing action plans needs to occur at two points -- one at the time individuals reviews their 360-degree appraisal results with their immediate supervisors and again after individuals have shared their results with their appraisers. At point one, the individual develops tentative plans for improvement with his or her immediate supervisor. It is important to include plans for what and how to discuss the 360-degree appraisal results with the individual's appraisers. After the individual has shared the 360-degree appraisal results with appraisers, the individual should have more information on the targeted individual work behaviors that need improvement.

Reporting summary results back to appraisers. Individuals can increase employee involvement and communication by sharing the results of their 360-degree appraisals with their appraisers. Therefore, the 360-degree appraisal process should require that individuals let their appraisers know the results of their 360-degree appraisals and what they plan to do with the results. This gesture conveys an appreciation to appraisers for completing the 360-degree appraisals and also gives them an opportunity to hear a summary of individuals' strengths, weaknesses, and goals for improvement. Individuals may be more committed to improving their behaviors when they share their improvement goals with their appraisers. In some instance's individuals may want to discuss areas of discrepancy with their appraisers to gain more clarity on the gap between appraisals of self and appraisers.

The author's survey results indicate that 60% of the direct contributors reported that managers appraised by them had not shared summary results of their upward appraisals with them. Furthermore, 76% of the appraisers reported that their managers did not discuss improvement goals with them. Direct contributors wanted to know managers' reactions to the results and expected managers to address the supervisory behaviors that needed improvement. Appraisers will probably question why the necessity of completing the 360-degree appraisal surveys if individuals are not going to make attempts to improve. Thus, a failure to discuss the results of employee opinion surveys can lead to widespread employee cynicism. Organizations should not consider using 360-degree appraisals unless top and senior management commits to taking the process seriously. On the other hand, if 360-degree feedback is respected, the organization may gain a competitive edge because it is providing a structure and a process for candid communication (London & Beatty, 1993).

Setting Specific Improvement Goals and Action Plans. Individuals need to finalize their improvement goals after they have met with their appraisers. It is critical to teach individuals how to set improvement goals. Research suggests that more improvement occurs when a formal review of feedback includes goal-setting than when individuals only receive feedback (Nemeroff & Cosentino, 1979). However, it is also critical that the goals are specific rather than general.

The author had opportunities to access completed improvement goal-setting forms in two organizations. The author and two colleagues independently rated the extent to which improvement goals and action plans were specific. Goals had to be specific, measurable, and time bound. This meant that a time line was stated for improvements of specific work behaviors. The results indicated that almost all of the goals were general, not specific. Fuzzy objectives like "do a better job of delegating" or "spend more time listening" were common. Post-study interviews with individuals reveal that individuals and their immediate supervisors spent very little time writing out specific improvement goals and action plans. Failure to set specific goals based on the 360-degree appraisal results will contribute

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to a lack of improvement in individual work behaviors even in cases where intentions are good.

Receiving Just-in-Time Training. Immediate training should be part of the individual's action plan for improvement. Training should occur within on or two months after the improvement goals are set. Individuals need training during this period for a number of reasons. First, the 360-degree results should increase individual's awareness of the need for improvement and the need for training. Second, if individuals receive training immediately, they may stand a greater chance of making improvements salient enough to receive positive recognition from their appraisers. Individuals may need this recognition to encourage them to discontinue using old, ineffective behaviors and begin practicing new effective behaviors.

The author's survey results revealed that individuals were often left to figure out for themselves how to improve low-rated supervisory behaviors. Some of the individuals reported that they tried to find someone in the organization who was very good at the behavior they wished to learn. For example, one individual reported that instead of waiting to attend a time management seminar he consulted with someone within the organization who was a "master" at time management.

Mini-Appraisals and Follow-up on Action Plans. Individuals may need to receive more 360-degree appraisal feedback throughout the year by using mini-360-degree appraisal surveys. These surveys include only the questions that received the lowest ratings on the original 360-degree appraisal. Human resource development personnel could administer these brief surveys. Periodically (about every four months), appraisers would complete the mini-assessment to evaluate the individual's improvement in his or her most problematic areas. This approach may help individuals receive recognition for improvements because of the additional feedback throughout the year.

Individuals and their immediate supervisors need to follow through on the steps listed in the individuals' action plans. In one follow-up survey, 72% of the individuals reported that their immediate supervisors had not followed up on action plans based on the 360-degree appraisal results. Individuals indicated that it was easy to overlook following up on their own action plans because other high-priority tasks needed their attention. Individuals' immediate supervisors indicated they felt it was not their job to be watch dogs and it was up to the individuals to make sure they completed their action plans. Supervisors assume that good individuals will make sure they do what is necessary to make self-improvements. The follow-up process may be one of the most critical contributions toward improving individual work behaviors.

Recognition for Improvements. Positive reinforcement is critical for helping individuals shape new individual work behaviors. Lessons from behavioral psychology are applicable here. In designing the 360-degree appraisal process it is crucial to raise individuals' awareness about the link between reinforcement and desired effective individual work behaviors. However, survey results indicate that 87% of the individuals felt their appraisers and supervisors had <u>not</u> recognized them for their efforts to improve their individual work behaviors. Mini-follow-up appraisals may indicate to some individuals that they are not putting enough effort into improvement and therefore explain why they are not receiving positive feedback from their appraisers. Follow-up appraisals may be an important step in the process in providing individuals with recognition for their improvements from their appraisers.

Accountability for Performance Improvement. There are at least four ways to hold individuals accountable for responding to their 360-degree appraisal results. The first way is to ensure that individuals share and discuss the results with their appraisers and make commitments to improve areas that need improvement. The second way is to require that individuals share the 360-degree appraisal results with their immediate supervisors. However, the survey results indicate that this approach needs significant improvement if it is going to be effective. The third approach, which some organizations are using, is to include the 360-degree appraisal in the annual performance appraisal. While this may help promote accountability, organizations need to address two problems associated with annual performance appraisals before using this approach. Research suggests that only about 60% of executives and upper level individuals receive annual performance appraisals (Longnecker & Gioia, 1988). Organizations need to make sure everyone has a performance review if 360-degree appraisal results are going to be part of this review. Next linking merit raises to 360-degree appraisals is problematic because of the problems associated with the merit raise process. The author's survey results indicates that appraisers are concerned about the negative side-effects of their 360-degree appraisal ratings being used to determine merit raises. This concern can lead to inflated ratings. The fourth and final approach is to create a link between the failure to improve individual work behaviors and some type of negative consequence. IBM, for example, lets managers know that if poor supervisory behaviors are not improved within two or three years they will be asked to resign from their positions and to move to a strictly technical position. This type of link lets individuals know the company expects individuals to use the 360-degree appraisal

feedback to improve weak areas. Along these lines some insurance companies use 360-degree appraisal data as one piece of information to determine whether promote individuals should be promoted to higher level management positions. There is even empirical research demonstrating that 360-degree appraisals are better than assessment center analyses for predicting good individuals (McEvoy, 1987).

The Outcomes There at least five possible outcomes of a 360-degree appraisal process. These outcomes include (1) increased awareness of appraisers' expectations, (2) improvements in work behaviors and performance, (3) reduction of undiscussables, specifically, appraisers' feelings and perceptions about undesired behaviors of the appraisees, (4) increase in effective periodic informal 360-degree performance reviews, and (5) increase in organizational learning.

Increased Awareness of Appraisers' Expectations. The first outcome is an increase in individuals' self-awareness due to an understanding of the ways that appraisers perceive them. Research results suggest 360-degree appraisal feedback can alter individuals' self-evaluations (Atwater & Yammarino, 1992) . Individuals who rated themselves higher than their 360-degree appraisal ratings tended to reduced their self-ratings in subsequent self-appraisals. Research supports the importance of creating an alignment between expectations of self and others (Moses, Hollenbeck & Sorcher, 1993). Individuals with more accurate self-perceptions are known to be better performers and more successful (Atwater & Yammarino, 1992).

Improvement in Individual Work Behaviors. The second outcome is an improvement in individual work behaviors. Only two experimental field studies on improvements in individual work behaviors have been reported up to this point. One study demonstrated that a consultant who reviewed the upward appraisal results with first-line supervisors was able to help supervisors make significant improvements in their individual work behaviors three months after the initial appraisal (Hegarty, 1974). The second experimental study, in which the managers' immediate supervisors reviewed upward appraisal feedback found no significant improvements in supervisory behaviors three months after the initial appraisal (Antonioni, 1995). The difference between the two studies may relate to the effectiveness of the person coaching the Appraisee. Consultants may be more effective because they have the skills and take the time to coach individuals. Future research is needed for a direct comparison between consultants and supervisors. From the author's experience, the coaching factor is a critical part in the design of the 360-degree appraisal process. The process must be designed to produce results. Anything less will lead to frustration and disappointment for the appraisers who are asked to complete the appraisals and anyone else involved in the process.

Reducing the Undiscussable - Undesired Work Behaviors. The third outcome is a reduction in the undiscussable – candidly discussing frustrating undesired work behaviors. Consider the two-year study on work and well-being by Hogan and Morrison (1991). They reported that "in study after study, across organizations, occupations, geographical locations and time periods, at least 60% of the workers surveyed reported that the most stressful aspect of their job is their immediate supervisor." The authors suggested that there is a 60-75 % base rate for managerial incompetence. One possible reason that the percentage is so high is the infrequency that individuals are given individual work-skills training prior to placement in management positions. Furthermore, once individuals are placed in management positions, they seldom receive feedback to help them learn what behaviors need improvement. Although their input is sorely needed, up until recently it was dangerous for appraisers to give honest feedback to individuals who have the power to hire, reward the appraisers. Therefore, organizations may want to consider the reduction of undiscussables as one positive outcome and conduct studies to determine if there are correlations with other variables such as turnover, absenteeism, visits to the doctor, and productivity.

Increase in Informal 360-Degree Performance Reviews. The fourth outcome, informal 360-degree performance reviews, is a visionary-type goal for 360-degree appraisals. Ideally, formal 360-degree appraisals should teach individuals and their direct reports how to improve their communication, especially giving and receiving constructive feedback. In the past, it was not the norm for individuals to actively seek feedback from their appraisers because of the costs (fears) of being perceived as weak and dependent. Now, however, with the emphasis on servant and stewardship leadership it is plausible for individuals to seek information on whether they are meeting their "customers' expectations. Management's active feedback-seeking behaviors as well as the number and quality of informal 360-degree performance reviews can be measured by asking appraisers. Organizations may want to focus on this visionary goal because 360-degree appraisals done once a year may not be sufficient.

Improve Management/Organizational Learning. The fifth and final outcome is organizational learning. The emphasis for this type of learning is on attaining a mindset shift or renewal. For this to

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take place members of the organization need to learn how to openly discuss and learn from their mistakes. Aggregate 360-degree appraisal data is a gold mine. All that is necessary is that a designated responsible individual (HRD) prepare the results in a manner that stimulates an interest in learning from the data.

The author helped the human resources department in one organization use the aggregate data to stimulate discussion of management development in a management training workshop. The human resources department developed a profile of a real-ideal supervisor based on an analysis of what the best individuals were said to be doing. In addition, themes about management's behavior existed in the written comments. For example, one recurring comment read "be less political and emphasize the positive principles and values you stand for." This comment lead the organization to examine whether individuals "walked the talk" of espoused management behaviors. Individuals took ownership for perceived realities and shared mistakes they felt they made in leading and managing people. The discussion continued by examining their assumptions about management. The discussions produced a major mindset shift of managing from power and control to sharing power and control with organizational members. The training in the workshop became more meaningful because it was customized based on aggregate anonymous 360-degree appraisal comments and created a dialogue that had been missing in the organization.

Conclusions

The intent of this article is to provide guidelines to practitioners for designing an effective 360-degree appraisal processes. Organizations considering implementing 360-degree appraisals should first define realistic desired outcomes and then develop the specific processes to attain those outcomes. Some organizations are jumping into implementing 360-degree appraisals without clearly defining the mission and the scope of the appraisals. Organizations appear to be focused on improvement in work behaviors as the primary outcome. However, if the 360-degree appraisal process is not designed to help individuals make improvements the appraisers will be disappointed and disillusioned. This will lead to frustration and ultimately 360-degree appraisals may develop a poor reputation similar to downward appraisals.

Finally, the 360-degree feedback process offers a major opportunity for organizational members to improve the quality of their work relationships. The model presented in this paper can help appraisers and appraisees effectively define the quality requirements in their work relationships. The process can teach individuals how to give and receive constructive feedback effectively and provides a structure for discussing the undiscussables. If the 360-degree appraisal process is effective, organizational members should not only improve in work behaviors and thus performance, but also stimulate active learning within the organization.

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A Survey About Training Evaluation Practices in Selected Organizations: Summary of Results

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Training evaluation (TE) has emerged as a major issue for HRD professionals in recent years as decision-makers are demanding increased accountability for training efforts. While HRD professionals have frequently been advised to demonstrate the return on training investments, little is known actual TE practices in U.S. organizations. This paper summarizes the results of a 1995 survey of ASTD members. Although limited by a low response rate of only 18.57% (65 surveys returned), the results indicated that most TE is conducted by HRD professionals and that course evaluations ("smile sheets") remained the most frequently-used TE method.

Evaluation "is the process of appraising something carefully to determine its value" (Rothwell & Sredl, 1992, p. 411). As McLagan (1989) has pointed out, HRD professionals play an important role as evaluator, which she defined as "identifying the impact of an intervention on individual or organizational effectiveness" (p. 58).

Training evaluation (TE) has received increasing attention. Consider that a bibliography on return-on-investment for training contains *hundreds* of citations ("Resource guide," 1994) and that books on evaluation are among the bestsellers of the field (Phillips, 1991). But that should not be too surprising. More than ever before, HRD professionals are being required to show that training has made an impact on the bottom-line and that results match intentions. Although much has been written about TE, however, too little is known about typical TE practices in U. S. organizations today.

What is the status of TE? To answer that general question--and continue the line of investigation begun with an earlier study on training needs assessment (Rothwell, 1996)--the author prepared and mailed a survey to 350 randomly-selected members of the American Society for Training and Development (ASTD) in May 1995. Although the response rate was disappointingly low--only 65 surveys were returned by September 1995, making the response rate a mere 18.57%--the results of this descriptive and exploratory do shed some light on current practices. They also raise additional, intriguing questions about TE.

This paper summarizes the results of the study. In the sections that follow the author will describe the research questions guiding the study, the study methodology, key conclusions and issues for future investigation.

Research Questions

The major goal was to assess current TE practices. More specific study goals focused around answering such questions as these:

1. Who conducts training evaluation?
2. What role does top management play in training evaluation in the respondents' organizations?
3. For what job categories is training evaluation most often conducted?
4. What training evaluation methods are most frequently used by selected HRD professionals who are ASTD members?
5. What training evaluation methods are perceived to be most effective by selected HRD professionals who are ASTD members?

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6. What did the survey respondents perceive to be the biggest problems or difficulties faced by organizations that conduct training evaluation?
7. What did the survey respondents perceive to be the biggest advantages that are gained by organizations that conduct training evaluation?

Methodology

The researcher began the study by drafting a survey to address the research questions listed above. The 4-page survey consisted of 12 items and numerous subitems. Questions 1-4 solicited background information about respondents and their organizations; Question 5 solicited information about training needs assessment in the respondents' organizations; Question 6 asked about top management's role in TE in the respondents' organizations; Question 7 inquired "who conducts training evaluation in your organization?"; Question 8 solicited information about the frequency of TE conducted for various job categories in the organization; Question 9 solicited information about how often respondents used various TE methods and how effective respondents perceived them to be. Question 10 inquired about the biggest problems encountered by respondents in conducting TE; Question 11 inquired about the biggest advantages resulting from TE when conducted in the respondents' organizations. Finally, Question 12 asked respondents to make any additional comments about TE they wished.

How Was The Survey Prepared? Two HRD professionals reviewed the survey prior to mailing. The researcher revised the survey based on their recommendations.

How Was The Survey Conducted? In May 1995 the researcher selected a random sample of 350 HRD professionals from the 1994 membership list of the American Society for Training and Development and mailed the questionnaire on May 5, 1995. Approximately 2 weeks after the survey was mailed, a follow-up postcard was sent to the original list of survey recipients to encourage a response. Names were selected from the alphabetic listing of ASTD members. Consultants and academicians were excluded when their names were drawn for the sample. No effort was made to follow-up with nonrespondents.

Limitations of The Survey. The survey results should be viewed cautiously for several reasons. This study was limited by (1) a low response rate, even for a survey of this kind; (2) possible systematic bias resulting from the use of a random sample of members of the American Society for Training and Development; and (3) no follow up with nonrespondents. Given the study's limitations, the results cannot be generalized beyond the respondent group.

Results and Conclusions

Although the response rate as 18.57%, not all respondents answered every question. Hence, responses vary by item. This section will report on the demographic information about the respondents and answer the major research questions posed by the study.

What Demographic Information Was Collected About the Respondents? Of the 57 respondents who indicated the industry in which their organization was classified, 18 (32%) represented manufacturing. Eleven respondents (19%) marked "transportation/communication/electric/gas," 3 (5%) marked "retail trade," 8 (14%) marked "finance, insurance, real estate," 5 (9%) marked "healthcare," 5 (9%) marked "government/armed forces," and 7 (12%) marked "other."

Of the 65 respondents that indicated the number of people employed by their organizations, 15 (23%) indicated their organizations employed between 500-1999 workers; 12(18%) marked between 2000-4999, 11(17%) marked 10000 and above, 8 (12%) marked 0-99, 7 (11%) marked 250-499; 7(11%) also marked 5000-9999, and 5 (8%) marked 100-249.

Of the 47 respondents who chose to indicate whether they have responsibility for supervising staff, 24 (51%) marked "yes" and 23 (49%) marked "no."

Question 1: Who Conducts Training Evaluation? Respondents were asked this question: "Who conducts training evaluation in your organization?" Respondents were presented with a list and directed to "circle all response codes that apply." Of the 65 survey respondents, 51 chose to answer this question. Thirty-four (67%) indicated "trainers only"; 15 (29%) indicated "other"; 14 (27%) indicated "an informal committee composed of trainers, line managers and others; 8 (16%) indicated "nobody"; 7

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(14%) indicated line (operating) managers only; and 3 (6%) indicated "a formal, top-management commissioned committee."

Question 2: What Role Does Top Management Play in Training Evaluation in the Respondents' Organizations? The researcher was curious about the role of top management in TE. Accordingly, the respondents were asked the following question: "Almost every book on training and development indicates that top managers have a keen interest in showing the dollar-value return on money invested in training. However, it is not always clear exactly what they want or how they could be convinced that training is worth the money invested in it. In your organization, top managers (1) never ask for indications of the dollar return on training; (2) ask for indications of the dollar return on training only after it is delivered; (3) ask for indications of the cost-benefit of training before it is designed and delivered; and/or (4) participate personally in computing cost-benefit analysis of training results." Respondents were asked to check "yes" or "no" for all applicable enumerated items. Response rates varied by item. Of 58 respondents, 24 (41%) marked "yes" to item 1; of 55 respondents, 22 (40%) marked "yes" to item 2; of 53 respondents, 20 (38%) marked "yes" to item 3; and, of 53 respondents, 10 (19%) marked "yes" to item 4.

Question 3: For What Job Categories Is Training Evaluation Most Often Conducted? Respondents were asked this question: "for what job categories do you conduct training evaluation?" They were then presented with a list of possible job categories and frequencies identical to those posed on a separate and parallel survey on training needs assessment (Rothwell, 1996). The results of this survey on TE are presented in Table 1. The mean responses indicate that TE is most often performed for technical employees, supervisors, and production employees.

Table 1: Frequency of Training Evaluation by Job Category

Job Category	Frequency								
	Never	Once every 6+ yrs.	Once every 4-6 yrs.	Once every 3-4 yrs.	Once every 2-3 yrs.	Once every 1-2 yrs.	Once every year	Mean	Stnd Dev.
Executives	29	2	3	1	2	7	10	3.11	2.57
Middle Managers	18	3	1	4	4	9	13	4.0	2.55
Professional employees	16	4	3	1	5	8	16	4.19	2.56
Technical employees	12	2	3	-0-	4	12	18	4.76	2.46
Supervisors	12	2	4	4	4	5	22	4.68	2.47
Salespersons	13	3	3	2	3	3	13	4.0	2.6
Clerical employees	19	4	2	1	5	7	12	3.76	2.58
Production employees	12	1	1	2	4	7	16	4.63	2.55

Question 4: What Training Evaluation Methods Are Most Frequently Used by Selected HRD Professionals Who Are ASTD Members? Respondents were supplied with a list of 19 possible TE methods and were asked to indicate which ones they used most often. The survey results are

presented in Table 2. Not surprisingly, class evaluations ("smile sheets") ranked 1 by mean. However, observation and role plays ranked 2 and 3 by mean, respectively.

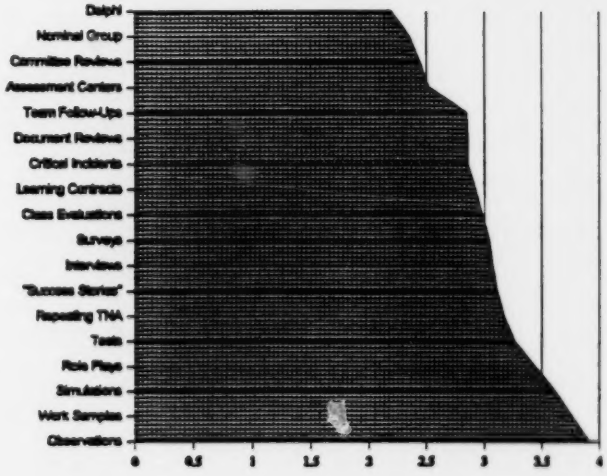
Table 2: Perceived Frequency of Use of Training Evaluation Methods

Training Evaluation Method	Frequency of Use						
	Not at all 1	Seldom 2	Some times 3	Frequently 4	Very Frequently 5	Mean	Standard Deviation
Surveys	8	9	18	15	9	3.14	1.25
Interviews	5	13	22	8	10	3.09	1.19
Observations	5	9	13	20	11	3.40	1.21
Work samples	20	8	10	9	9	2.63	1.51
Document reviews	27	7	11	4	5	2.13	1.36
Repeating needs assess-ment	18	9	16	10	5	2.57	1.33
Critical incidents	22	6	11	9	6	2.46	1.45
Delphi procedure	45	2	4	1	-0-	1.25	0.68
Nominal group technique	39	2	6	3	-0-	1.46	0.93
Assessment center	40	6	5	3	-0-	1.46	0.88
Self-directed workteam follow-ups	30	9	9	6	2	1.95	1.21
Meetings after training	16	16	15	6	6	2.49	1.28
HRD committee reviews of training results	38	7	5	5	-0-	1.58	0.99
Learning contract follow-ups	31	12	10	3	-0-	1.73	0.94

Simulations of performance during training	12	6	15	11	12	3.09	1.43
Role plays of performance during training	10	4	19	14	12	3.24	1.33
Tests after training	18	9	12	8	8	2.62	1.45
Class evaluations	6	2	5	13	35	4.13	1.30
"Success stories" told about training to others	13	11	10	13	9	2.89	1.42

Question 5: What Training Evaluation Methods Are Perceived to Be Most Effective by Selected HRD Professionals Who Are ASTD Members? Respondents were also asked to rate the relative effectiveness of the list of 19 possible training evaluation methods. The survey results are presented in Figure 1 based on mean responses. Note that, according to respondents of this survey, the most effective methods are perceived to be observations, work samples, simulations role plays and tests--in that order.

Figure 1: Perceived Effectiveness of Training Evaluation Methods By Mean Response



Not at all effective **Very Effective**

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Question 6: What Did the Survey Respondents Perceive to Be The Biggest Problems or Difficulties Faced by Organizations That Conduct Training Evaluation? Respondents were asked this question: "What are the biggest problems or difficulties that your organization has faced in conducting training evaluation?" That question evoked 1 ½ pages of single-spaced responses. Sample verbatim responses are provided in Table 3.

Table 3: The Biggest Problems in Conducting Training Evaluation

Note: Each bulleted item below is the verbatim response from one respondent.

- Lack of resources → needs assessment & follow-up. Subjective evaluation.
- No requests nor emphasis on evaluation. Do what has traditionally been done.
- Most managers don't understand what good training is, let alone evaluation. We are just beginning to get together a valid & reliable hard skills program.
- Headcount to staff a professional evaluation function. Selling staff groups on benefits of evaluation.
- On management development, finding a objective evaluation test.
- Turning a change of behavior into ROI.
- Managers pulling out employees while in session.
- Used the same evaluation instrument for at least 15 years. It was terrible--poorly designed, confusing, and management based major decisions on the results it provided! Incredible new instrument going on line in June.
- Finding an easy, inexpensive way to do it.
- Lack of objectivity--training is often outside driven. Also, top managers drive training results frequently.
- Time to develop. Lack task standards and procedures.
- Tying to specific business strategies.
- Lack of support, endorsement by senior management.
- Getting organization to take evaluation seriously.
- Accepting upfront cost and time associated with systematic evaluation.
- Budgets, difficult work environments.
- Allocating time and resources to do them. Obtaining effective follow-up from supervisors/managers of attendees.
- Lack of management support.
- Everyone is an expert. The higher the level of management the more expert they become.
- Being given time, "permission" to conduct evaluation. Seeing benefits of pre-implementation evaluation. Having time, "permission" to revise.
- Determining purpose and conducting the method.
- Providing criteria--sufficient detail, time to conduct evaluation of employee, skill of evaluator.
- No time to do them; no planning.
- Institution of a formal training procedure based on individual and organizational needs.
- Not enough time; poor methodology
- Getting anyone (trainees & supervisors) to help evaluate training after the class.
- Testing seems to have limited value; areas which should show greater benefit often show the least.
- Not getting cooperation from supervisors & managers. They're too busy.
- How to do it.
- Not getting support to conduct training evaluation.
- Don't know how to do it.
- Evaluating behavior on-the-job after training. We don't do enough of it.
- Evaluating training at all.
- Time: never enough of it; Data availability; methodology selection--what's best?

Question 7: What Did the Survey Respondents Perceive to Be The Biggest Advantages That Are Gained by Organizations That Conduct Training Evaluation? Respondents were asked this question: "What are the biggest advantages your organization has gained by conducting training evaluation?" That question evoked ½-page of responses. Sample verbatim responses appear in Table 4.

Table 4: The Biggest Advantages of Conducting Training Evaluation

Note: Each bulleted item below is the verbatim response from one respondent.

- Reassurance to use (HRD) that we're providing high quality programs; support for continued HRD programs; higher-level support and participation if we could show bottom-line results better; higher level of satisfaction for ourselves and others that we're providing the right solutions vs. just quality programs
- More strategic, focused training
- Written documentation proving or disproving the value & results of training
- We can compare participants' perceptions of how much they learned and how important it is to job success and plot various courses relative to each other. If a course is outside the normal distribution, we can improve it or cancel it.
- Classroom assessments used during a course provide feedback to instructor that can be shared/processed with class. This improves achievement of key learning objectives by all participants.
- Determining if we did the "right" training for the specific change we wanted to see--behavioral, knowledge, etc.
- Support for what we're doing; understanding needs
- Improve the level of training; target the training to the real needs of the client.

Issues for Future Investigation

Here are some recommendations for future research on training evaluation in no particular order of implied importance:

- What are the perceived advantages and disadvantages of each TE method for each job category?
- What affects how often TE is carried out?
- What affects the effectiveness of TE approaches and methods?
- What challenges face external consultants who conduct TE that differ from those faced by internal consultant/practitioners?
- How well integrated are TNA and training evaluation practices?

Conclusion

Interest in TE, like interest in training needs assessment, appears to be growing. Although this paper describes the results of a limited study, more intensive research should be directed to identifying and

examining typical as well as best-in-class TE practices. Without information about "what is really going on," it is difficult for academicians to develop worthwhile research agenda in the field.

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Comparing the Predicted and Actual Benefits of HRD Programs

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An assumption is made that once the financial benefits of HRD programs are forecasted, actual outcomes should be closely aligned with what was predicted. However, comparing the forecasted benefits to actual outcomes of HRD interventions is rarely done in organizations. This study first forecasted the expected benefits of a structured versus an unstructured on-the-job training program for two tasks. Next, actual benefits derived from the structured OJT approaches were evaluated against the predicted benefits. Implications about the discrepancy are discussed.

Cost-benefit analysis can help HRD practitioners be accountable for their efforts. Researchers likewise use cost-benefit analysis to determine how HRD professional practices can be made more effective. For example, a study by Bishop (1991) found that informal training by coworkers had a higher benefit-to-cost ratio than informal training by management. A study by Jacobs, Jones, & Neil (1992) showed that a structured on-the-job training (OJT) intervention would result in greater financial benefits to the organization than the unstructured OJT option.

The purpose of cost-benefit analysis is to determine the financial benefits expected for the organization, oftentimes after having made the HRD investment. The purpose of forecasting financial benefits is to determine the expected benefits for the organization before making an investment in an HRD program. Most cost-benefit studies available in the literature typically report high returns to the organization after the investment has been made, and suggest that these HRD interventions have positive outcomes (See Phillips, 1994). In addition, these studies have mostly been from a perspective of either predicting events or reconstructing events after the event has occurred. Prediction involves suggesting what might occur when the HRD program is implemented. Reconstructing events looks at the result after implementation, without any prior knowledge of the situation. A problem with evaluating HRD programs after the fact is that they may be subject to the participants seeing what they want to see. No studies were found that compared forecasted outcomes to actual outcomes.

As pointed out by Gradous and Swanson (1988) any way costs and benefits are figured will never provide a complete picture of the value of an HRD program. However, this study attempts to examine the discrepancy between the forecasted and actual outcome of an HRD intervention. The study also offers suggestions on how to close the gap.

Problem Statement and Theoretical Framework

One of the most pressing issues for human resource development (HRD) professionals is to substantiate the contributions they make to organizations. Several researchers have cited the need for HRD professionals to view their activities in terms of economic benefits to the organization (Braggs, 1989; Brinkerhoff, 1987). According to Phillips (1991), evaluating the bottom-line contributions of programs is one of the leading issues in the HRD field. As a result, there have been increasing calls for reviewing HRD from an economic perspective. Several cost-benefit models have been developed to carry out such a view. While these models have advanced the field in substantive ways, they have also opened up new concerns about the nature of this HRD process.

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First, when cost-benefit analysis studies have been reported, almost all have shown that one HRD program option is clearly preferable over some other option. The accuracy of these results may be viewed with some skepticism. In addition, aside from the studies that use a forecasting approach, many studies were conducted after the HRD programs had been used. Reconstructing events to fit the current reality may subject the researchers to a self-fulfilling prophecy. Finally some researchers in the field have come to doubt the validity of the cost-benefit studies in the first place, stating that they rarely take into account the full complexity of the variables that may account for the results (Lyau & Pucel, 1995).

If cost-benefit analysis is an important HRD process, and if new concerns have been identified as a result of its use, then more in-depth information is required about the process and its outcomes. To do this, it seems necessary to examine both predicted and actual financial benefits, and to begin the process of understanding what the differences between the two might be and why they might differ.

Purpose of the Study

The purposes of this study were to:

a) Predict the forecasted financial of two HRD program options, using structured OJT and unstructured OJT.
b) Confirm whether the predicted financial benefits were actually obtained after the structured OJT program had been implemented.
c) Speculate the reasons why from a systems perspective there was a discrepancy between the predicted and actual financial benefits.

The importance of this study is to help show how the HRD benefit forecasting model can be used as a tool to both predict and evaluate HRD interventions. Also, to show that while cost-benefit analysis studies are critical for gauging the contributions of HRD programs, this process must be viewed as part of a broader organizational change process and, thus, is not an end in itself.

Framework: HRD Benefit-Forecasting Model

This study used the financial-benefit forecasting model, as developed by Swanson and Gradous (1988). There are three components to the model: a) performance value that results from the HRD program, b) the cost of the HRD program, and c) the benefits that result from the program. Table 1 presents the basic calculation of the model.

Table 1. HRD Benefit-Forecasting Model for Unstructured and Structured On-the-Job Training

UNSTRUCTURED OJT	STRUCTURED OJT
$ Performance Value	$ Performance Value
- $ 0	- $ Cost
$ Benefit	$ Benefit

Performance value is viewed in terms of training efficiency for both unstructured and structured OJT. Training efficiency is defined as the rate at which new tasks are learned by novice employees, to the extent that those employees can do those tasks without assistance from

others (Jacobs, 1994). There is an implicit cost of time that a novice incurs when they are new on a task and receive no structured assistance to reach a level of competent performance. When focusing on training efficiency, as is the case in this study, the HRD benefit-forecasting model takes this time savings into account in the performance value calculation.

Method

The method utilized in this study was the one shot case study research design (Campbell & Stanley, 1963). The HRD benefit-forecasting model was used to both predict the financial benefits between the two options and later to evaluate the actual benefits of the structured OJT option that was implemented. A combination of qualitative and quantitative data were collected to complete the information necessary for the performance value and cost. Interviews were conducted with five transaction processors, two managers, and two supervisors of the area to obtain the necessary data. Originally, the performance value was based on eleven processors being trained on two tasks: a) Dumping-in data and b) Entering miscellaneous payments.

Results

The results from the analysis are shown in Tables 2 and 3. Using the HRD Benefit Forecasting Model, Table 2 shows the predicted financial benefits. This table also shows that for each option, benefits were obtained by subtracting cost from performance value. Comparing the predicted benefits to be obtained from the unstructured and structured OJT options showed that the structured OJT option was substantially higher. From this information, one might surmise that the structured OJT option would be the preferred option for the organization. These results are consistent with other research examining structured versus unstructured HRD interventions (Swanson and Sleezer, 1989; Jacobs, Jones, & Neil, 1992).

Table 2. Predicted Financial Benefits of Unstructured and Structured On-the-Job Training

	Option #1 (n=11) Forecasted Unstructured OJT	Option #2 (n=11) Forecasted Structured OJT
Task 1: Dump-in		
Performance Value	$3,142	$5,498
- Costs	0	700
Benefits	$3,142	$4,798
Task 2: Miscellaneous Payments		
Performance Value	$3,927	$6,872
- Costs	0	700
Benefits	$3,927	$6,172

Table 3 presents the comparison between the predicted benefits and the actual benefits, using structured OJT. This information was gathered after one year had elapsed from when the training was to be used by the organization. Thus, this information represented what actually occurred, after the decision was made to use structured OJT, based on the predicted financial information originally given to the organization.

Table 3. Forecasted and Actual Financial Benefits of Structured On-the-Job Training

	Forecasted (n=11) Structured OJT	Actual (n=2) Structured OJT
Task 1: Dump-in		
Performance Value	$5,498	$1,000
- Costs	700	700
Benefits	$4,798	$ 300
Task 2: Miscellaneous Payments		
Performance Value	$6,872	$1,250
- Costs	700	700
Benefits	$6,172	$ 550

Table 3 shows that the predicted financial benefits had not been realized, because only two employees received the training, instead of the forecasted eleven. Thus, nine employees did not receive the training as expected, which would have increased the benefits of the training. The differences found between the predicted and actual financial benefits were accounted for by the on-going re-engineering efforts in the organization. In fact, this activity was known by managers, but the likely disruptions it would cause were not taken into account when predicting the differences between unstructured and structured OJT.

Discussion

Although it appears that structured OJT was originally forecasted to be the better option, subsequent analysis showed that not to be the case. In fact, from a financial perspective only, unstructured OJT could have been considered the better option, given that only two employees would have been trained in the period of the analysis. Certainly, organizations must select training programs other than financial benefits alone. For example, one can only surmise the financial benefits that were likely obtained through the avoidance of errors, even though only two employees received the training.

At the same time, in comparing predicted and actual financial benefits, there should be greater precision in determining the likelihood of the predicted situation actually occurring. As shown in Figure 1, Jacobs & Jones (1995) present a system view to help determine the components that comprise structured OJT. The system view presents the inputs, processes, and outputs of structured OJT. The system also reflects the organizational context in which the structured OJT exists, or any training approach for that matter. Thus, perhaps the affects of the re-engineering effort could have been raised as an issue at the beginning of the project. Certainly, if the project had not proceeded in a different direction, at least the issue could have been more effectively addressed by managers during the time structured OJT was expected to be used. Not all issues can be resolved in organizations; but, their undesirable affects can often be lessened through advanced knowledge of them.

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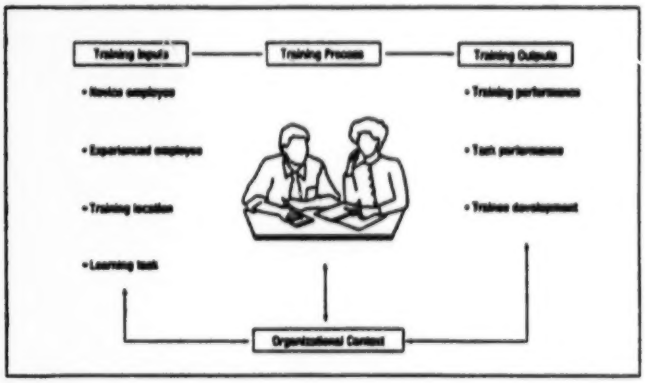
Figure 1. Structure OJT as a System



Conclusion

Current research suggests that organizations desire to know of the economic returns made on their HRD investments (Lyau & Pucel, 1995). Determining the predicted and actual financial benefits is the most precise way of confirming this information. But, understanding the differences between the predicted and actual financial benefits will likely be hindered without using a theoretical framework, such as a systems view. Systems theory is well-suited to the planning and use of HRD programs. In this case, even though full benefits of the forecast were not achieved, the structured OJT could not be claimed as a loss for the organization, because the skills learned by the two processors were undoubtedly useful to the organization nevertheless. But much more impact could have been obtained with additional information, aside from the direct questions asked by the financial forecasting model alone.

Organizations naturally want to know "what could be" and "what was" the economic benefits of using HRD programs. The question asked by this organization supports the findings in a recent survey conducted by Gayeski (1995) that identified a trend "toward applications in business settings with "bottom line" results." (p.9) This question of what is the bottom line is becoming standard practice for HRD practitioners. If investments in HRD are to taken seriously by companies, all levels of the organization must be responsible for its impacts. Specifically, top management must see the economic relationship between increased organizational productivity and their investment in training (Carnevale and Schultz, 1990). To incorporate a systems approach using the HRD Benefit-Forecasting model can help answer this question. The "bottom-line" is that HRD practitioners can only plan for what is forecasted to happen. Unless an organization has full information, the predicted and actual benefits will differ nearly all the time.

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